

ABSTRACT

0038        An apparatus and method for testing the electrical characteristics of a semiconductor wafer, including integrated circuit components thereof. An outer layer surrounds an inside needle, such that the outer layer comprises a hard material, which can penetrate through a semiconductor layer to permit subsequent testing of at least one semiconductor integrated circuit component located below the semiconductor layer. The inside needle may be adapted to electrically contact one or more electrical semiconductor circuit components located below the semiconductor layer. The inside needle generally comprises a prober, while the outer layer generally comprises a piercer. The outer layer may be configured from a hard material, such as diamond or carborundum. The inside needle and the outer layer together form a concentric double layer structure prober. The outer layer generally comprises a sheath formed from a hard dielectric material, such that the sheath comprises a piercer.